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ABSTRACT

The National Center for Educational Communication (NCEC) has shifted its emphasis from dissemination of information toward the broad objective of improvement in educational practice. With this change, the Educational Resources Information Center (ERIC) system will no longer serve as the focal point of the operation. In its discussions of NCEC's new role, the Advisory Board recommended: (1) establishment of multiple-stop Practice Centers in preference to one-stop centers, (2) enhancement of existing centers toward eventual incorporation within a network of such centers, (3) development of evaluation schemes to assess the work of these centers, (4) consideration of the user's viewpoint as a basic element in communication system development, (5) establishment of use incentives, (6) improved communication practices utilizing media technology and (7) greater involvement with existing related organizations and agencies. Other policy matters to be considered by NCEC include changes in the school as an institution, higher productivity in the field of education, improvements inside and outside the profession, the active and passive roles of information centers, advancement of educational technology, electronic networks, packaged information outputs, improved reporting, cooperative action, response to increased demands for service, and systematic development of a national communication system. (AB)

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REPORT

of the

DISSEMINATION ADVISORY COMMITTEE

to the

NATIONAL CENTER FOR EDUCATIONAL COMMUNICATION

U.S. Office of Education

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INTRODUCTION

The assignment given to the Committee by Lee Burchinal, USOE Assistant Commissioner, National Center for Educational Communication, was to review the current and planned NCEC dissemination and application programs and to identify alternative new dissemination and application initiatives for the guidance of NCEC. The Committee was supplied with background information about the history of the program and about its current objectives and tentative plans.

The Committee met in three sessions: (1) June 2, 1970, in New York City; (2) July 7-8, 1970, in Washington, D.C.; (3) September 14-15, 1970 in Washington, D.C.

During its initial meetings, the Committee had its individual members describe the major communications programs for which they are personally responsible or with which they work closely. Ole Sands described the communications network of the National Educational Association, NEA's UNISERV with its equivalent of county agents to aid local schools, and the Center for the Study of Instruction's communication and action program titled Schools for the 70's as well as CSI's Field Studies Program. Wayne Howell described the interest of the Charles F. Kettering Foundation in planning and financing the creation of a large number of multi-media communication packages over the next ten years, each unit designed to communicate about a single educational issue simultaneously to various lay and professional audiences in media appropriate to each audience. Kenneth Komoski explained the work of the Educational Products Information Exchange and its methods for getting valid information about educational products into the hands of prospective users. Donald Erickson explained the network of Instructional Materials Centers and Regional Media Centers network sponsored by the USOE Bureau for the Education of the Handicapped and the 300 user-designed, user-built, user owned associate centers which have grown up around them with state or local financing. Other Committee members drew repeatedly on their personal knowledge of communication processes in other settings in contributing to the discussion. None of the programs were offered as models for NCEC to emulate, but all were pointed out as ongoing operations with complementary objectives and as activities which could profitably relate to and perhaps assist NCEC in its newly-expanded efforts.

This report draws together the views of individual Committee members without identifying the source of each idea. During our deliberations, certain ideas were championed by individual members; those which appear here received the endorsement of the entire group.

THE NEW ROLE OF NCEC

The conversion of the Office of Information Dissemination into the National Center for Educational Communication was explained. The Committee was told that NCEC will be especially sensitive to major USOE program priorities and will work to disseminate products created with USOE support, in addition to serving the general dissemination interests of the field. Moreover, the expansion in the function of the office from that of transmitting information to include the broader objective of actually changing educational practice was explained. This shift affected the thinking of the Committee throughout its sessions.

The Committee was told that during months of its deliberation, the ERIC budget had been reduced from about $5 million to about $4 million and that the $1 million saving, when added to the $3 million already available to NCEC for non-ERIC functions, made a total of $4 million available for new initiatives in diffusing better practice. The Committee was told that the shrinkage in the ERIC budget would probably mean the closing or consolidation of several existing ERIC centers. The decision to reduce the ERIC budget leaves NCEC with its total budget of approximately $8 million divided equally with about $4 million for the support of ERIC and about $4 million for the spread of better practice.

The shift in emphasis at NCEC from the dissemination of information to the spread of improved practice means to the Committee that ERIC can no longer be the center of the system. While the spread of improved practice can unquestionably be enhanced by distributing information about practice, the modification of practice of course requires more than the transmission of information. Research results are transmitted by documents; practice is not, although document production, storage, and retrieval is necessary.

In its original conception, ERIC was envisioned as a collecting, organizing, storing, and transmission facility for research reports. During its early history, researchers were thought of as the primary source of input and as likely to be one of the most active user groups. The document collection in ERIC has largely outgrown this original conception and the pattern of use has not shown researchers to be among the heaviest users. Moreover, although some of the original design features remain, many of the new services such as Putting Research into Educational Practice (PREP) obviously are designed to make research more immediately applicable to practice.

No matter how ERIC changes in the future, the Committee envisions that NCEC will expand in such a way that the ERIC system will not be the central operation; new NCEC appendages will grow and a new center will develop, with ERIC remaining as highly significant but not the central part of the organization.

Given NCEC's new role, the Committee discussed and debated questions such as these:

1. Should NCEC employ the $4 million available for new initiatives in diffusing practice to build something akin to the IMC/RMC network supported by the Bureau for the Education of the Handicapped, perhaps pilot testing a pattern in a few locations?

2. Should NCEC spread the $4 million thinly to disseminate a set of products through professional associations, state education departments, and other such agencies rather than going directly to schools or creating its own intermediaries?

3. Should NCEC concentrate on spreading specific programs and practices for a maximum immediate impact?

4. Should NCEC concentrate not on spreading practice immediately but instead use its resources to develop the linking and service dimensions of a communications network so that practices could be affected more strongly in the future?

5. Should NCEC concentrate on preparing printed messages at relatively low expense across many different topics, letting the recipient proceed on his own to learn more about topics he selects?

6. Should NCEC instead concentrate on fewer topics but express its message in more diverse media, sponsor demonstrations, support training, and otherwise take the user a greater distance?

The Committee's views and conclusions about NCEC's future role are reported below.

CONCLUSIONS AND RECOMMENDATIONS

The Committee's wide-ranging discussions touched on a great many topics but exhausted none. Thus this report explores much territory without mapping it comprehensively and often uses single illustrations to score a general point. Furthermore, since the Committee was not exact in its terminology, this report tends to use terms like information center and communications center interchangeably.

In its terminology and its planning, NCEC recognizes a difference between "exemplary practices" and "validated programs", the former being originated by or successfully installed in operating school sites and the latter being the products of large scale, systematic development efforts. The Committee thinks this is a useful distinction and believes that the techniques of describing and transmitting the two may need to be somewhat different. For example, it is likely that "exemplary practices" have not been evaluated with the rigor often applied to "validated programs" and that the consumer may need to rely more on his own judgement in adopting the former than the latter. However, having noted the distinction with approval, the Committee tended to ignore it in its discussions. Thus the distinction is not made hereafter.

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One-Stop Information Centers

The Committee was told about NCEC's concept of a "one-stop information center" where practitioners could come to get all their questions answered. The Committee was asked to elaborate this concept, but to remember that NCEC cannot afford $1 million per state or even one dollar per pupil to operate such centers and must limit itself to stimulating or pilot testing the creation of a few. NCEC's expectation would be that, given the emergence of a successful pattern, other funding sources would be prompted to duplicate the pattern, multiplying the number of information centers without putting a drain on NCEC resources.

The Committee spent considerable time discussing the idea of one-stop centers and reached several conclusions. To begin with, the idea of a one-stop "information" center is probably defective in more than one respect. As indicated above, the Committee believes that school practice cannot be changed simply by transmitting information. This means that if a center aspires to be a complete "one-stop" service center, it must supply more than information. Or if the practitioner actually can stop only once, he needs to get more than information. In fact, there is reason to doubt seriously that the "one-stop" concept is particularly useful. Probably it should be replaced by the concept of "one location" for all necessary program-improvement services, which is probably what NCEC should aspire to help create.

Since the practitioner needs more than information, there is good reason to doubt that NCEC should attempt to operate a complete center out of its own resources. That is, if its funds are to be devoted to communication, and if communication is not enough to change a school practice, NCEC would need to support the communication function in a center which had collateral support for its other functions, such as demonstrating equipment, supplying materials, offering consultation (in the practitioner's school) and giving training.

Practice Improvement Centers

The Committee conceived a multiple-stop "Practice Improvement Center" as being a more suitable, more useful concept than a "one-stop information center." A Practice Improvement Center would have the following characteristics:

1. The Center would be equiped to supply not only information, advice, materials, and perhaps instructional equipment on loan. It would be equiped to demonstrate new programs and better practice. It would ideally be able to supply any training necessary for teachers wishing to use the new methods and materials.

2. It would be connected to the education "establishment." That is, it would not be a free-floating unit attempting to penetrate the

institutional structure of schools from the outside, but would be linked directly to the lines through which power, authority and influence already flow. There are a number of points at which suitable connections could be made: a state education department; the office of an intermediate unit of school governance such as a county superintendent; a regional service center created by a group of local school systems, as has been the case with some ESEA Title III units; the central office of a large city or county school system; a teachers' organization with a substantial set of local chapters holding contracts with local boards of education; a major teacher-training institution supplying a large number of teachers to local schools in its state or service region; a major publisher serving an appreciable proportion of the school market; or a strong parents' organization with a proven record of success in influencing local school practice.

3. The Center should be aggressive and outreaching, actively seeking consumers rather than passively waiting for them to knock at its doors. It ought to actively probe consumers' needs rather than simply waiting for them to be expressed. It ought to be alert to special opportunities which arise as well as to needs which become apparent. For example, a new federal program may create an improvement opportunity even though the schools have not been seeking special help in that area of their operation.

4. The Center ought to be able to reach the several kinds of audiences which must be dealt with in improving school practice: administrators, curriculum specialists, classroom teachers, parents, students, and the general public. A single channel of communication connecting the Center to a single audience will not be sufficient.

5. Mobility is essential. The Center needs wheels to send out its materials and to transport its consultants into the field. The scene of its activities should not be its offices alone, but all the locations in which its clients carry out their work. The Center should also enjoy an identifiable physical location to which practitioners can come in order to enter the national information network to which the Center is connected. An existing example of this is the Education Reference Center operated by NCEC in the USOE offices. Here staff members have convenient computer-based access to the entire ERIC collection.

6. The Center should be readily accessible to all its consumers--not more than a one-hour drive away and always immediately accessible by telephone.

7. The Center should be staffed partly by "peer-practitioners" who are recognizable to the clients as people much like themselves, people who know the practical demands of daily classroom teaching, who are realistic about what teachers can accomplish, and who will

give honest answers about the materials and practices being made available through the Center. It would be desirable to have the peer-practitioners assigned to work in the Center only temporarily --say for a period of two years--after which they would return to their regular school assignments, from which vantage points they could become local advocates of Center services. Or the peer-practitioners might continue to teach part-time while working at the Center.

8. The Centers would need to be led by NCEC, which would have to supply a variety of services, including a major document file, properly indexed, with a rapid-retrieval feature such as ERIC; a steady flow of interpretive summaries of research and descriptions of good school practice nationwide; models of financing, organizing, staffing, and operating a successful Practice Improvement Center, plus training for the professional staff of the Center. In short, the Centers could not operate successfully by themselves but would be dependent upon an aggressive, outreaching, service-oriented NCEC for continuing support.

Converting Existing Information Centers

It should not be necessary, and it probably would be wasteful for NCEC to attempt to create wholly new Practice Improvement Centers at its own initiative and with its own funds. Moreover, it would be premature to attempt to create a complete regional or national network until NCEC gains more experience. Instead, NCEC should adopt a policy of enhancing and expanding some of the 300 information centers which already exist, such as the good one in Montgomery County, Maryland. Gradually, over time, NCEC should experiment with methods for linking centers together into networks.

Existing centers are almost always connected to and supported by some educational institution--that is, they are already linked to "the establishment"--and they already have a base of continuing financial support. NCEC could reshape their work and increase their power by supplementing their work in such ways as the following:

1. Paying the center to extend its services to other geographic areas, additional grade levels, or other kinds of pupils. For example, the network currently maintained by the Bureau for the Education of the Handicapped offers services for handicapped pupils only. NCEC might pay some of these centers to work with teachers of all pupils.

2. Adding "circuit riders" to their staffs to move out through their service areas, extending the reach of the center. (Most existing centers play a relatively passive role, except for printed announcements, displays at meetings, and word-of-mouth advertising about their programs.)

3. Giving travel money to schools in outlying areas so that teachers could visit the center without working their way through a formidable amount of red tape in their local schools.

4. Sponsoring the development, pilot testing, and demonstration of computerized methods for materials inventory control to help centers become more efficient in using their collections.

5. Sponsoring an intervisiting program among centers so that the best practices in dealing with clients can be exchanged.

6. Paying the staff of a successful center to train the staffs of other centers so as to create a multiplier effect.

7. Building central service units at state or multi-state levels to sponsor the creation of additional centers and to serve those which already exist by supplying materials, program ideas, demonstrations, and staff training.

8. Sponsoring research and experimentation with the listening/receiving functions of centers to supplement their talking/sending functions. Effective existing centers could be invited to propose to NCEC that it sponsor the demonstration of techniques they are already using with success. Alternatively, NCEC could sponsor the invention of new methods for local centers to communicate upward to the headquarters of the national information network the kind of requests they receive from clients. Presumably there is need here for organizing, indexing, synthesizing, summarizing, and perhaps even translating client requests into a form in which they could be acted upon at the national level. That is, if centers could make a penetrating analysis of clients' requests, rather than merely transmitting them, ideas for whole new substantive programs might emerge.

In subsidizing the work of existing centers so that they will expand their operations (or in creating new centers, should NCEC decide to attempt that) a pattern of cost sharing needs to be established at the beginning with the understanding that ultimately the information centers will no longer depend upon NCEC for funds. Of course, the centers can continue to depend upon NCEC for packaged information and related services.

It might be well for NCEC to employ a policy of spending its funds for functions that will outlast its financial subsidy. For example, purchasing equipment for information centers is one way to make the contribution last longer than the two or three years NCEC is likely to be providing a subsidy. The same could be said about staff training, which will tend to go on benefitting the organization long after NCEC has ceased its cash contributions. In contrast, subsidizing the salaries of staff members or purchasing short-life materials are helpful only so long as NCEC money continues to flow into the local operation.

Evaluating Communications Centers

Because so little is positively known about the way to operate an effective communications center, NCEC should immediately begin to develop evaluation schemes for assessing the work of such centers. The ultimate objective of evaluation is to locate the most successful patterns of operation so that they can be spread widely. Evaluation can be applied both to centers which NCEC subsidizes and to centers which operate independently.

Some possible criteria for evaluating communications centers are:

1. The center is able to reach a variety of audiences--the general public, the school-connected public, professional leaders, school administrators, classroom teachers, students, and so on.

2. The center is able to deliver its messages in various print and non-print media, with the format of each message altered as appropriate for various media.

3. The center is able to work with the client at several different levels. If he wants to browse through a stack of program descriptions, those can be available. If he wants to examine instructional material, that can be available. If he wants a list of places to visit, he can get it. If he wants a diagnosis of his own circumstances, that can be arranged. If he wants a 30-minute slide/tape presentation on behavior modification for an upcoming PTA meeting, that can be produced. If he wants a compilation of recent research for a faculty committee, that can be supplied.

4. The center tends to reproduce itself. It can point to other locations where it has had a hand in initiating a new center or in influencing the service pattern of an existing center.

5. The methods which the center uses are appropriate for its setting. For example, a center in a sparsely-populated region makes sensible use of electronic linkages with its clients, while a center in a densely populated area with good transportation makes the most of face-to-face communication.

6. The center actively seeks new clients and reaches out to serve existing clients in more influential ways. It does not simply wait passively.

7. The center maintains an active search for service patterns which work well in other locations and might be adopted or adapted for its own use.

8. The center is well-connected to a central service unit such as NCEC through which it is linked to national information sources.

9. The center systematically collects, analyzes, and reports the kinds of requests it is getting from its clients. The reports are used to plan the local service program and are forwarded to the national resource center to influence central planning.

10. The center deals in information which has passed through professional filters--either before the information reaches the center or by screening arrangements which the center itself has created.

Additional criteria to extend this list may be inferred from specific suggestions made elsewhere in this report.

Although NCEC itself should not take responsibility for evaluating programs, practices, and materials, it should actively encourage its own data sources to conduct and to report evaluative information along with descriptive information so that NCEC can filter out the insignificant or ineffective or can, at the very least, pass both kinds of information along to its clients.

Conceiving a Communications System from the User's Viewpoint

An entire communications system could be conceived from the user's point of view. Let us begin by supposing that we are in fact becoming a "learning society". Moreover, we can assume that with the prospective end of the war in Vietnam and the expected shift in the national economy from military toward civilian concerns, more money should become available for education. It would then be possible to conceive of every child as a "special education" student whose individual development would be a matter of genuine concern. Let us assume also that every child should help design his own education, helping his parents and teachers decide what he ought to accomplish.

Such a set of assumptions, when logically extended, lead to the idea of an"information center" located close to the schools and performing an information function seldom discussed: the function of first collecting from parents and students what they want as they seek to learn and then reporting this information to upper-level policy makers so that they can respond accordingly. From this viewpoint, the information consuming system should be allowed to shape the information producing and delivery system. Similarly, the educational products being generated, both their content and their instructional procedures, would be designed to meet the requests and requirements of the ultimate users.

Under such conditions, what is today conceived of as a "dissemination" problem would become instead an "information seeker's" problem. That is, the question would then become "How can we develop and deliver the information and products they are requesting?" rather than "How can we get them to use the information and products we are now developing and delivering?"

If NCEC actually sees communication as a two-way process, it would be refreshing as well as revealing to have it make studies of the "other" half of the communications circle, with the "feedback" loop conceived first rather than second. It seems likely that this approach would give rise to a dissemination and practice improvement operation distinctly different from one derived by thinking first about dissemination and second about response. Beyond the advantages of freshness and novelty, it seems that the philosophical values underlying a user-oriented approach are unassailable.

It should be made clear that designing a system in direct response to needs expressed by the user is not the same as making the customary study of "user's needs." That is, studying the way that consumers use an existing information system can lead to refinements in that system, but it is not likely to yield specifications for a whole new system designed in direct response to the user's expressed needs. One might come closer to doing that by giving a user (or better still, several different types of users) sufficient money and time to seek information and then recording their search behavior. Do they go to the library or do they employ someone to go for them? Do they subscribe to periodicals? Do they go on trips? bring in consultants? Go to exhibits? Invite salesmen? Order ERIC materials? Telephone their friends?

Suppose the typical user in a certain type of position--say the typical elementary principal--telephones a friend, a friend he thinks is well-placed, well-informed, and willing to lend a hand. If further investigation also shows that certain principals repeatedly receive such phone calls because many of their peers look to them, that would suggest an information dissemination system in which well-placed elementary principals are the outermost ring in a communications network. Further, if it develops that these well-placed principals gain part of their information through reading, material can be tailored to fit to their reading patterns. If it develops that they are not telephoned so much for their information as for advice and judgement about programs with which the caller had already become acquainted, that would suggest that what these key figures need is not descriptive information so much as evaluative information.

While this narrative is only illustrative, the main point is clear: a system designed from the user's point of view may be <u>quite</u> different from what the people at headquarters thought would be required to reach the consumer.

Incentives for Communicating

One serious problem is the relatively apathetic stance of many consumers who ought to take more interest in information about new programs and better practice. There seem to be too few incentives for such inactive consumers to go to the trouble of using information services even when they are made accessible. They are not likely to be reached by even the best-operated, most sophisticated services unless they can be aroused to use them.

It would be worthwhile for NCEC to sponsor experiments with new ways of rewarding passive practitioners to make use of information services. The Committee did not suggest many specific techniques for doing this, but the possibilities include the following:

1. Economic Incentives. A Practice Improvement Center might make the loan of instructional equipment conditional upon the use of its other services. That is, expensive pieces of equipment could be placed in local schools on a month-to-month basis but kept there only so long as a certain proportion of the faculty borrowed materials for use with that equipment or made a prescribed number of visits to the Centers.

2. Professional Recognition. Persons who use these Centers can be given professional recognition either within their own school systems or outside. For example, thumbnail sketches of interesting problems brought to the Center by specific individuals can be included in a Center newsletter, along with a note on how the person used the help when he returned to his own classroom. Or Center representatives can appear at local faculty meetings to describe Center services and, while there, mention with approval those local teachers who have used the Center recently. The same thing could be done at district-wide meetings of school administrators, where indigenous use of Center services by selected building principals could be singled out for special mention. Or recognition can be given by finding a place on the program of regional meetings for people who have made particularly apt use of what the Center offers. The purpose of such arrangements is not only to reward users, but also to stimulate non-users to seek similar recognition for themselves.

3. Reaching the Support Group. Another way of motivating non-users is to reach beyond them to the general public and parents, who in turn may be able to nudge the professional staff into inquiring at the Center. For example, the Center can place stories in local newspapers about new forms of practice which are especially promising but are not presently being used in local school districts. When parents inquire about these new programs at local school meetings, school officials and teachers may be prompted to inquire at the Center.

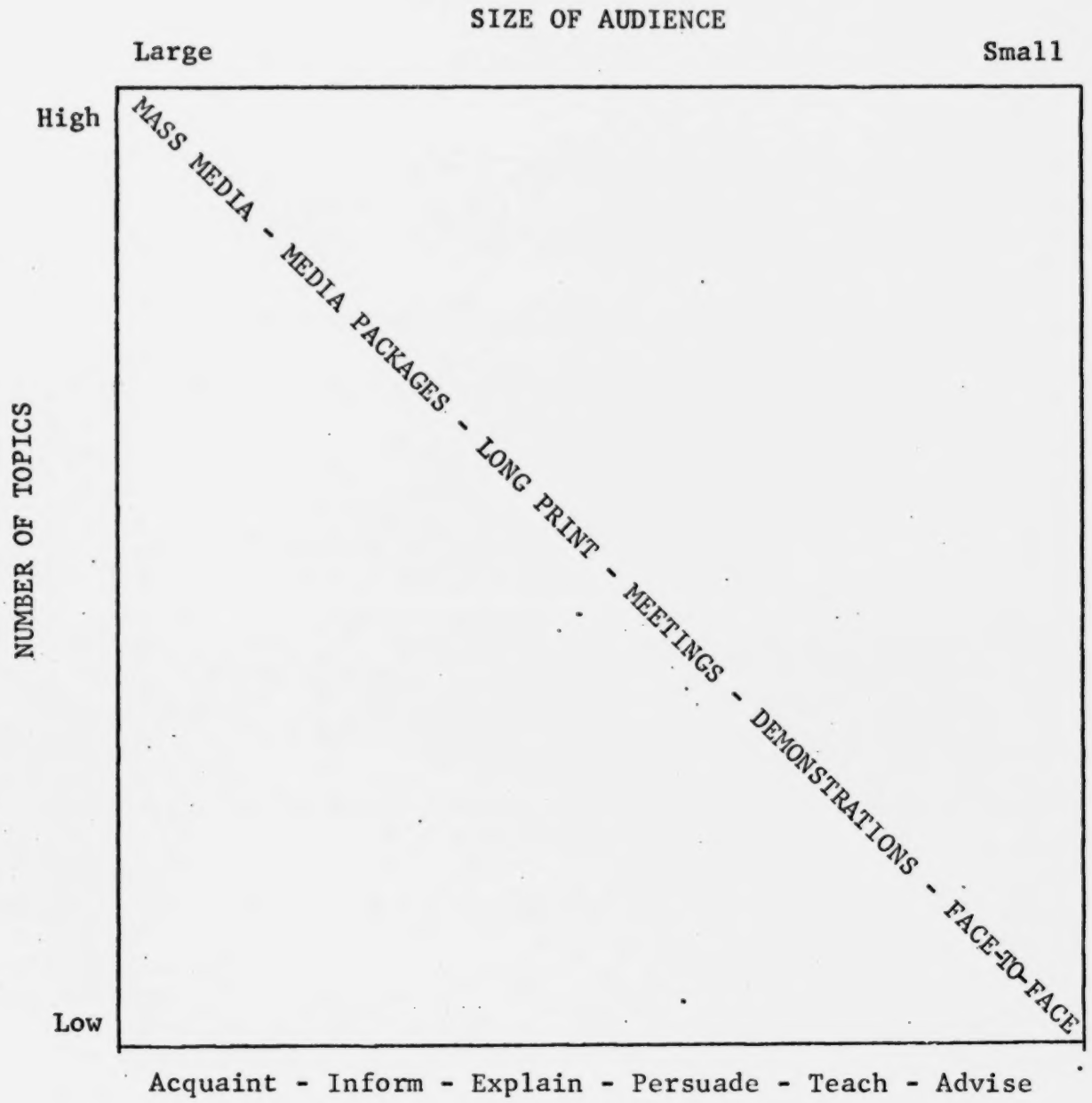
Apart from the matter of providing incentives to non-users, there is also the matter of rewarding the active users. Since active users may be especially interested and gratified by national recognition, NCEC could provide criteria and assistance to commercial companies which give awards in education so that they will go to innovative individuals or schools. In addition, or as an alternative, professional associations could be encouraged and assisted to reward the same kind of behavior by their members or by the schools where they work. NCEC, as a government agency, probably should hold itself apart from the actual selection, but once a selection is made by some other organization, NCEC could then strengthen the effect of the reward by announcing it nationally, arranging for the novel program to be described in print and non-print media for national circulation, and supplying modest funding for the district to take care of visitors during the succeeding year.

Choosing a Medium of Communication

In NCEC's current plans, some of its objectives deal with the wide distribution of information to large audiences while some have to do with implanting better programs and better practices in a limited number of local settings. The Committee believes with NCEC that both objectives are worthwhile but that different means have to be used to each end. For wide distribution of information at low unit cost, television, radio, and press as well as brief print materials seem highly suitable. Certain media packages such as slide-tape presentations can also be prepared and distributed at reasonable cost to producer and consumer. On the other hand, the actual installation of new programs in operating settings requires a more extended, deeper relationship between the information source and the consumer. For this kind of objective, NCEC (more exactly, the information centers which it supports or services) will need to rely upon inter-visitation programs, demonstrations, training, the loan of equipment and materials, face-to-face communication, and other techniques which intervene fairly deeply into the operating setting. Unit costs for this kind of operation will of course be much higher but impact will be relatively greater. The Committee sees advantages in having NCEC pursue both kinds of objectives so long as it recognizes that different strategies for achieving them will have to be employed.

The relationship between the size of the audience to be reached, the number of topics to be transmitted, the particular effect that is desired for each audience, and the choice of communication medium is roughly represented by the accompanying sketch. It indicated that as the size of audience and number of topics decreases, the communication medium of choice can and should move from broadcast techniques to face-to-face communication, with the likelihood of increasing the effect on the consumer.

CHOOSING COMMUNICATION MEDIA


SIZE OF AUDIENCE
Large
Small
High
Low
NUMBER OF TOPICS
MASS MEDIA - MEDIA PACKAGES - LONG PRINT - MEETINGS - DEMONSTRATIONS - FACE-TO-FACE
Acquaint - Inform - Explain - Persuade - Teach - Advise
PURPOSE OF COMMUNICATION

Using Mass Media

Committee members agreed that public attitudes have considerable power for modifying school practice. Moreover, the public seems to be entirely receptive at present to changes in the content and methods of standard school instruction and even to modifications in the structure of the school as an institution. Mass media such as television and radio can be used to arouse and inform the general public and the school-connected public about new programs and new practices which their schools might employ. Properly constructed messages can be influential

in changing attitudes as well as presenting information. Once public interest is aroused, professional staffs can turn to Practice Improvement Centers for detailed information and help in introducing specific changes.

Or, as an alternative, mass media could be used primarily to alert the public to new possibilities, while the Practice Improvement Center could be expected to take over at that point, educating the public in the particulars of a given innovation. As indicated elsewhere, the Committee believes that a properly informed public can bring constructive pressure to bear on sometimes-reluctant professional staffs for school improvements which the professionals would fail to accomplish through their own initiative.

NCEC could perform an invaluable national service by working through mass media to create a climate in which parents felt free to express their concerns in the expectation that schools would listen and respond. There are two parts to this objective: the first is for NCEC to help parents get a conception and a vocabulary for dealing with school affairs that would let them speak effectively, and the second is for NCEC to help school people become equipped to modify school practice in response to legitimate parental concerns. NCEC might sponsor research or perhaps stimulate experimentation with new ways for parents to bring their concerns effectively to the attention of school officials. There is presumably a communication problem here which merits study and the inventing of new solutions.

The Committee believes that the quality of education reporting on the mass media needs to be improved and that it would be a natural function for NCEC either to supply attractively-packaged information to the public broadcasting system as well as to educational broadcasting stations and/or to train reporters to prepare better materials on their own. At least two general strategies are open to NCEC:

1. Prepare half-hour special programs which are ready to broadcast on radio or television, or

2. Identify ongoing educational activities which are inherently so interesting that television, radio, and the press will cover the events on their own initiative and at their own expense.

Media can be used to reach a large professional audience as well as a large lay audience. Lee Burchinal himself supplied an example of how this is done in Texas, where a two-minute spot announcement mentioning a particular educational practice is broadcast. The announcement includes a phone number or post office box. Additional information is then supplied in printed form or through consultation arranged by the regional educational service centers which blanket the state. Teachers as well as parents are expected to take advantage of these announcements. In Texas, as elsewhere, nothing is to be gained by making such announcements unless appropriate backup support and supplementary information are available for prompt delivery on request.

Not all mass media attempt to serve a massive audience. For example, once there are a certain number of general-purpose radio stations in a metropolitan area, additional stations, if they are to survive, must select some sub-part of the mass audience in the region and direct their programs to them. NCEC and its associated information centers can profit by recognizing that there will be a growing number of selected-audience broadcast stations which may be more receptive to school-related information than the major stations that depend upon national networks for much of their programming.

Working With Organizations

The Committee discussed at length the possible working relationship NCEC might create with existing organizations and agencies so as to achieve its purposes at reasonable cost. What follows is intended to be illustrative rather than exhaustive.

Professional Associations. There are about 600 professional associations now in existence. Some are, of course, much larger and more influential than others and better situated to act as major partners with NCEC in disseminating information and promoting the spread of better practice nationwide. At the present time, NCEC has no effective way of dealing with professional associations and has not attempted to use them as a major channel for communicating messages.

NCEC should remember that the primary service every professional association performs for its members is communication. Through journals, professional meetings, and related services, the professional association finds much of its reason for existence in helping its members exchange information with each other. These channels have been in existence for some time and presumably reflect the gains of trial and error in satisfying members' information needs. Moreover, they operate on membership dues and put no strain on NCEC's economic resources. There is no reason for NCEC to duplicate the communication services of professional associations when they are working well. What NCEC ought to do instead is to enhance the information-supplying capacity of professional associations. Pre-packaged program descriptions, results of evaluative studies, lists of demonstration locations, and interpretive summaries of research literature with implications for practice are the kinds of materials which NCEC may be able to generate more readily than the professional association. It may be that non-print packages of information for use at professional meetings--especially at state and county meetings where well prepared presentations and speakers of national renown ordinarily cannot be made available--will meet a more significant need than supplying print materials to fill the pages of professional journals. Of course, the information packages for different kinds of professional associations will need to be tailored to their membership. NCEC has the power to produce packages with similar content but different methods of presentation at lower cost than the professional organizations could manage if they worked separately. For example, the concept of performance

contracting--widely discussed but little understood--can be explained in different terms and in varying degrees of detail for associations of school board members, school administrators, curriculum specialists, evaluators, and classroom teachers. In principle, this is somewhat akin to the strategy employed in the Integrated Information Units developed by the Far West Regional Educational Laboratory in Berkeley, which packages information for several levels of decision-making within a single school system.

The professional associations themselves are not linked to each other as well as they might be. NCEC could perform a valuable service by supplying a grant of perhaps $50,000 to an organization in the Washington, D.C. area to study the feasibility of establishing genuine and lasting communication links between the various professional organizations headquartered there. An alternative to a feasibility study would be the actual pilot testing of new communication links between several of the major associations.

The Committee noted the rising concern among professional associations that their local chapters be given a larger voice in negotiating the nature of the school program as well as the circumstances under which teachers work. A strong local association, partly because of the power it enjoys and partly because of the special relation it has with classroom teachers, is in a key position to transmit information about better practice to teachers and to keep a central organization well informed about the needs and interests of teachers. It is also in a position to endorse certain modifications in local practice which would be unlikely to come about without its approval.

National associations are trying to guide their local chapters in being more effective. Within NEA, for example, there is a National Foundation for the Improvement of Education. The working arm of that Foundation is the National Institute for the Improvement of Education. The operation of the Institute is only one of many stirrings in professional associations which want to do something creative and influential in improving not only professional practice but the institutions in which professionals do their practicing. NCEC needs both to be aware of this general movement within professional associations and to become connected to operational units that the associations create for changing schools.

Philanthropic Foundations. NCEC ought to be able to work cooperatively not only with other units of USOE engaged in educational change, but also with philanthropic foundations such as Ford, Kettering, and Danforth which are interested in improving education. NCEC ought to acquaint itself with the aspirations and intentions of foundations and should be alert to joint funding opportunities. It should take special note of the occasions when it reaches the boundaries of what it wishes to fund with its own budget and point out to foundations that they may wish to begin where NCEC has stopped. At the same time, NCEC should make its program known to foundations since they are frequently unable to disseminate adequately the pilot efforts which they sponsor and could use NCEC's help.

Communications Companies. A number of companies operating in the private sector have a great deal to do with distributing new instructional materials as well as information about new forms of practice. NCEC should work cooperatively with them, either by using channels which already exist or creating new ones. The Committee was told that many aspects of the ERIC operation had been and are being greatly enhanced by having private communications companies manufacture and distribute materials and design and manufacture better equipment, such as microfiche readers. The Committee strongly endorsed NCEC's past efforts and encouraged it to continue using private organizations. It would be unwise, as well as unnecessary, for NCEC to attempt to duplicate services which already are, or readily can be, provided by the private sector. As a general policy, NCEC should give private companies the opportunity to bid on operating any proposed new service before NCEC decides to operate it directly as a government function.

As a different strategy for changing school practice, the Committee considered making major use of the educational service company. As envisioned by the Committee, a service company would not simply publish and distribute materials to schools, but would instead provide several services: it would supply information, demonstrations, equipment rental, materials for use with the equipment, multi-media packages to explain the program, public events to acquaint parents with the new concept, initial training sessions for teachers and continuing monitoring and supervision of a new program after it is installed. A number of companies have provided such services on a very limited scale, usually in connection with selling their own products. Perhaps the closes approximation to full-scale service of the kind envisioned here are the recent cases of performance contracting, in which a commercial company installs and operates a complete instructional program, guaranteeing its performance and leaving the system intact at the end of the year for continued operation by the local school district without outside help. During the initial year of operation by the company, the local school staff is expected to learn the procedures so that NCEC ought, at the very least, to watch this movement closely and to consider its possibilities as a way of introducing change into schools. In a sense, it is simply a natural extension of the essential service commercial publishers have provided for decades in supplying schools with instructional materials.

It may be that the emergence of an educational service industry will have to await the ear-marking of federal funds for local schools to use and purchase broad-band commercial services. It would be useful for NCEC to study the circumstances under which the movement seems to succeed and perhaps to conduct small-scale experiments or to sponsor feasibility studies as a more active way of exploring the matter.

School Boards. School boards represent a special audience for NCEC and/or the information centers it supports. School boards are likely to be information-starved (except for what is supplied by the local school superintendent) yet they are in a key position to use any information which they do get. One characteristic of school board members which should be taken onto account is their relatively high turnover rate, especially in urban and suburban locations.

NCEC might mount an information service specifically for school board members designed to inform them about new forms of instructional practice as well as about new and better ways of conducting the non-instructional functions which often occupy their attentions, such as maintaining school buildings. Any such service should recognize that school board members tend to be intelligent but poorly informed about school matters, partly because many of them are new to the job; that they have only limited time for reading about school affairs; that they may respond better to non-print than to print materials; and that the school superintendent will probably want to filter the information they receive.

One possible route for reaching the school board members is through the school board associations rather than through local administrators. Board members themselves may prefer this route because of its relative independence.

Other Policy Considerations

The Committee touched on many other policy questions. Its advice to NCEC usually expressed as general guides rather than as operational suggestions, is summarized below.

Attention to Major Changes in the School as an Institution. The School as a social institution has come under increasing attack in the recent past. Some leaders are calling for radical modification and are predicting that the school cannot survive in its present form. Accordingly, the structure of the school as an institution--its organization, its staffing, its curriculum, its physical location, it time schedule--may be a more important focus for NCEC's improvement efforts than attention to single program elements such as a better way of teaching mathematics to third graders. That is, the incremental improvements which are possible through replacing existing components in the system with better but similar components may not be enough for the 1970's. If this turns out to be the main line of thought by professional leaders--those in USOE and elsewhere--NCEC must be attuned to this movement.

(Since this discussion took place, a new group of leaders has moved into USOE. They seem to be pressing exactly the view recorded here by the Committee. For example, the preliminary planning for the new Experimental Schools Program envisions experimental modifications in the entire school simultaneously, k-12, rather than modifications in a single grade level or a single subject field or a single teaching technique.)

Attention to Higher Productivity in Education. NCEC ought to be particularly alert to how education can be improved with no increase in the existing resources. The early 1970's seem to be a time in which efficiency--the greatest amount of instruction at the lowest dollar cost--has become a matter of urgent concern to the public. While the Committee recognizes that this may be a temporary condition associated with the general slowdown in national economic growth, it seems more likely that the cost of social programs--especially those in health, education, and welfare--now absorb about as much of the available tax revenues as they are likely to get in the immediate future. Thus we can expect a continuation, at least in the near term, of a strong public concern for economic efficiency and higher productivity. NCEC can gain credit both within USOE as well as with the public at large by making this a clear concern.

Improvement from Inside or Outside the Profession. The Committee was of mixed opinions as to whether improvement in education was likely to come from within the profession or more likely to be triggered by public and parental concern coming from outside the profession. The matter was not resolved. Perhaps if it had been, Committee members could have agreed that NCEC itself does not need to make a choice. What it needs to do is to work constructively both with those individuals and organizations within the profession which are actively concerned with improving schools and, simultaneously, to arouse general public concern about schools and to serve those organized citizen groups and parent associations which are working constructively to bring about change. Much that was said earlier reflects the twin concerns of the Committee: 1) that the profession be encouraged to work for improved education and 2) that concerned members of the public be encouraged to do the same thing--even in the face of professional lassitude.

Active and Passive Audiences. Both in designing its own program and in advising other information centers in designing theirs, NCEC should remember that all prospective audiences can be divided into at least two parts: 1) those who are seeking information, and 2) those who are not seeking information--and may not attend to it when the opportunity arises. Since the Committee conceives of all prospective audiences in these terms, it has repeated throughout this report that an information center cannot simply be a passive entity but must use an active, outreaching mode. There are those who will come to it and there are those others to whom it must go.

Influencing the Future of Technology. NCEC is in a special position to call for the creation of new educational technology, based on its analysis of the requests flowing in from various information centers around the country. If sufficient information does not arise in the natural course of events, NCEC could sponsor the special collection of consumer preferences for technological devices and materials and could communicate these to appropriate government agencies, philanthropic foundations, and manufacturers. This is an example of how NCEC can make use of the feedback loop in its communication system to influence the future course of educational practice.

The Possibility of Electronic Networks. The Committee also considered the possibility that an electronic network linking information centers to each other, or better still, linking schools to information centers, could replace existing methods of transmitting information. The Committee envisions instant-contact and two-way communications between schools and information centers, with file-searching capability being available either to the school itself or available without delay on request to the information center. The effect would be to open the entire ERIC file to immediate search by schools connected to the network as well as to make advice and consultation immediately available. The idea seems worth trying but may be premature until NCEC gets a better grasp of what the information-using consumer is actually like. It might be tried regionally before being attempted nationally.

The principle limitation the Committee sees in electronic linkage is that it is likely to be an information-only transmission belt. That is, unless it involves something as elaborate as closed-circuit television with two-way communication hardware, it probably cannot be used to provide training, which is essential in modifying educational practice.

Information Packages for Information Centers. A decision to work through subordinate information centers at state, county or city levels would mean that NCEC should expect to provide packaged information input to such centers. It is likely that their budgets will not allow them to develop or to evaluate materials and that they will depend upon a national source for pre-packaged information units containing both descriptive and evaluative data expressed in various media for use by various audiences.

It would be desirable for NCEC to study successful patterns of practice in information centers and to develop guidelines for the functions, and organization, staffing, and financing of such units. Case studies of successful operations would also be useful.

Improving Education Reporting. NCEC could provide a useful service by developing training packages to acquaint education writers and reporters --among whom there seems to be a rather high turnover rate--with the elements of education reporting and with the story ideas as well as with semi-finished story materials. As an alternative, NCEC can assist other information centers in supplying useful material to education writers and to broadcasters in their own service regions.

The Power of Cooperative Action. NCEC must remember that it is only one part of the educational system, and that while its power alone is limited, its power and combination with other parts of the system can be great. That is why the Committee has recommended that NCEC take pains to connect its work to that of existing organizations, and that if it creates new organizations, it take pains to get them properly connected to those already in existence.

Rising Demands for Service. NCEC should alert the Commissioner of Education and other high USOE officials that as the communications system

improves, it must be able to respond to an increasing demand for services. Past experience with communications networks shows that as channels are built and maintained, message traffic rises rapidly and users begin to expect results. Unless USOE in general, and NCEC in particular, are prepared to respond substantively to heavier service demands, there is little use--and some potential harm--in arousing them.

A Conception of a Communications System. NCEC needs to develop a systematic conception of what a national communications system in education would be like. As the Committee explored the ramifications of the general idea during its sessions, it came to realize that the specifications for such a system have yet to be written. They could of course not be produced during the limited time available to the Committee itself and will ultimately have to be designed either by the NCEC staff or through a more elaborate mechanism than an advisory committee. Until NCEC generates such a conception and can picture the complete system, the components it designs--like the components and services the Committee itself has suggested in this report--are quite likely to be fragmentary and somewhat disjointed.

FINAL COMMENT

The Committee wishes to record its endorsement of the way in which NCEC is attempting to face its new responsibilities. The administrative reorganization of the office to create a new "Division of Practice Improvement" which is separate from the "Division of Information Resources" is clear acknowledgement that information transmission alone is not powerful enough to improve practice. The shrinking of funds for the ERIC system in favor of expanding other functions of NCEC is a practical and realistic step taken to achieve NCEC's broader objectives. We endorse these specific moves and, beyond that, we congratulate Lee Burchinal and NCEC for the serious and open-minded way in which they are undertaking their new work.